



the cell surface. The Fas ligand-induced DNA laddering could be blocked by adding 10  $\mu$ g/ml of a soluble blocking monoclonal antibody directed against Fas. This same.

DET-DESC:

DET-ID(183)

Jurkat . . . 37 degree, C., after which wells were aspirated and washed twice with PBS to remove unbound antibody. Jurkat cells treated with Fas ligand or M3, a blocking monoclonal antibody directed against Fas, (Alterson et al., J. Exp. Med. 161:71, 1985; and PCT application.

DET-DESC:

DET-ID(187)

Fas ligand demonstrated the ability to kill Jurkat cells. The anti-Fas antibody M3 inhibited the activity of Fas ligand, but not the activity of TRAIL.

d his

[FILE USPAT ENTERED AT 15:02:01 ON 25 MAR 1999]

E GOODWIN RAYMOND/JIN

L1 23 S E R O E S R E A

L2 28 S FAS/WLIGAND

L3 1 S L1 AND L2

=> d12-1-28 leg ab

US PAT NO. 5,875,939 [IMAGE AVAILABLE]

DATE ISSUED: Mar. 2, 1999

TITLE: FAS associated proteins

INVENTOR: John C. Reed, Carlsbad, CA

ASSIGNEE: Takaaki Sato, San Diego, CA

(corp.)

ASSIGNEE: La Jolla Cancer Research Foundation, La Jolla, CA (U.S.

corp.)

PRIM-EXMR: Campbell & Flores LLP

LEGAL-REP: Campbell & Flores LLP

ASSIGNEE: La Jolla Cancer Research Foundation, La Jolla, CA (U.S.

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PRIM-EXMR: Campbell & Flores LLP

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PRIM-EXMR: Campbell & Flores LLP

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PRIM-EXMR: Campbell & Flores LLP

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ASSIGNEE: La Jolla Cancer Research Foundation, La Jolla, CA (U.S.

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PRIM-EXMR: Campbell & Flores LLP

LEGAL-REP: Campbell & Flores LLP

US PAT NO. 5,877,285 [IMAGE AVAILABLE] L2: 2 of 28  
ABSTRACT:  
Nucleic acids encoding a thymokine from a mammal, reagents related thereto, including specific antibodies, and purified proteins are described. Methods of using said reagents and related diagnostic kits are also provided.

US PAT NO. 5,876,043 [IMAGE AVAILABLE] L2: 5 of 28  
ABSTRACT:  
The present invention relates to isolated MEKK proteins, nucleic acid molecules having sequences that encode such proteins, and antibodies raised against such proteins. The present invention also includes methods to use such proteins to regulate signal transduction in a cell. The present invention also includes therapeutic compositions comprising such proteins or nucleic acid molecules that encode such proteins and their use to treat animals having medical disorders including cancer, inflammation, neurological disorders, autoimmune diseases, allergic reactions, and hormone-related diseases. When MEKK is expressed, it phosphorylates and activates MEKs including MEK-1, MEK-2 and JNK.

US PAT NO. 5,875,831 L2: 3 of 28  
DATE FILED: May 19, 1997  
ART-UNIT: 164  
PRIM-EXMR: Kenneth R. Horlick  
LEGAL-REP: Campbell & Flores LLP

US PAT NO. 5,876,939 [IMAGE AVAILABLE] L2: 3 of 28  
APPL-NO: 08/658,311  
DATE ISSUED: Mar. 2, 1999

TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

Aleena Lizonova, Rockville, MD

ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

Aleena Lizonova, Rockville, MD

ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

Aleena Lizonova, Rockville, MD

ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

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Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

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Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

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Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,875,726 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

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Aleena Lizonova, Rockville, MD

ART-UNIT: 166  
PRIME-XMR: Sally P. Teng  
LEGAL-REP: Giulio A. DeConti, Jr., Catherine J. Kara  
US PAT NO. 5,854,043 [IMAGE AVAILABLE] L2: 5 of 28  
ABSTRACT:  
The present invention relates to isolated MEKK proteins, nucleic acid molecules having sequences that encode such proteins, and antibodies raised against such proteins. The present invention also includes methods to use such proteins to regulate signal transduction in a cell. The present invention also includes therapeutic compositions comprising such proteins or nucleic acid molecules that encode such proteins and their use to treat animals having medical disorders including cancer, inflammation, neurological disorders, autoimmune diseases, allergic reactions, and hormone-related diseases. When MEKK is expressed, it phosphorylates and activates MEKs including MEK-1, MEK-2 and JNK.

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
ABSTRACT:  
The present invention relates to isolated MEKK proteins, nucleic acid molecules having sequences that encode such proteins, and antibodies raised against such proteins. The present invention also includes methods to use such proteins to regulate signal transduction in a cell. The present invention also includes therapeutic compositions comprising such proteins or nucleic acid molecules that encode such proteins and their use to treat animals having medical disorders including cancer, inflammation, neurological disorders, autoimmune diseases, allergic reactions, and hormone-related diseases. When MEKK is expressed, it phosphorylates and activates MEKs including MEK-1, MEK-2 and JNK.

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

Aleena Lizonova, Rockville, MD

ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

Aleena Lizonova, Rockville, MD

ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

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Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

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Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

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Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

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ASSIGNEE: GenVec, Inc., Rockville, MD (U.S. corp.)

US PAT NO. 5,851,806 [IMAGE AVAILABLE] L2: 6 of 28  
DATE ISSUED: Dec. 22, 1998  
TITLE: Complementary adenoviral systems and cell lines

INVENTOR: Imrie Kovacs, Rockville, MD

Douglas E. Brough, Olney, MD

Duncan L. McVey, Denwood, MD

Joseph T. Bruder, Gaithersburg, MD

Aleena Lizonova, Rockville, MD

DATE FILED: May 23, 1996  
 ART-UNIT: 129  
 PRIM-EXMR: Richard L. Raymond  
 LEGAL-REP: Nixon & Vanderhye, P.C.

US PAT NO: 5,830,916 [IMAGE AVAILABLE] L2: 8 of 28

**ABSTRACT:**  
 The present invention relates, in general, to the bioeffector molecule ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,830,469 [IMAGE AVAILABLE] L2: 9 of 28

**ABSTRACT:**  
 The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking Fas ligand-mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

US PAT NO: 5,830,469 [IMAGE AVAILABLE] L2: 9 of 28

**ABSTRACT:**  
 The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking Fas ligand-mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

US PAT NO: 5,830,469 [IMAGE AVAILABLE] L2: 10 of 28

**ABSTRACT:**  
 Yeast-based delivery vehicles are disclosed. Also disclosed are methods for altering apoptosis in cells, for promoting cell survival and for identifying compounds capable of affecting the binding of Bax-omega to other proteins involved in apoptosis.

US PAT NO: 5,830,469 [IMAGE AVAILABLE] L2: 10 of 28

**ABSTRACT:**  
 The present invention includes yeast vehicles and their use as delivery vehicles. Yeast vehicles include a yeast portion and a heterologous compound. Such yeast vehicles can be used to protect animals from disease and to otherwise carry compounds to given cell types. Examples of yeast vehicles include gene delivery vehicles, drug delivery vehicles, and immunomodulatory vehicles. Immunomodulatory vehicles are capable of modulating an immune response. When stimulating an immune response, such yeast vehicles effect cell-mediated as well as humoral immunity.

US PAT NO: 5,798,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

DATE FILED: Oct. 25, 1994  
 ART-UNIT: 182  
 PRIM-EXMR: Stephen Walsh  
 ASST-EXMR: Loraine Spector  
 LEGAL-REP: Jonathan A. Quine, Kenneth A. Weber, Edwin P. Ching

US PAT NO: 5,786,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 Nucleic acids encoding a thymokine from a mammal, reagents related thereto, including specific antibodies, and purified proteins are described. Methods of using said reagents and related diagnostic kits are also provided.

US PAT NO: 5,770,990 [IMAGE AVAILABLE] L2: 12 of 28

**ABSTRACT:**  
 Bax omega protein and methods.

INVENTOR: Catherine Mastroni Bitter, Menlo Park, CA

ASSIGNEE: Stephen Scott Bowersox, Menlo Park, CA

ASSIGNEE: Roberto Crea, San Mateo, CA

ASSIGNEE: Susan Dumham Demro, San Francisco, CA

ASSIGNEE: William A. Horne, San Diego, CA

ASSIGNEE: Mei Zhou, Palo Alto, CA

ASSIGNEE: Neuron Corporation, Menlo Park, CA (U.S. corp.)

ASSIGNEE: Neuromed, Menlo Park, CA (U.S. corp.)

ASSIGNEE: Stephen K. White, San Diego, CA

ASSIGNEE: Youseff L. Bennani, La Jolla, CA

ASSIGNEE: Stacie S. Canan Koch, San Diego, CA

ASSIGNEE: Beth Ann Bedee, San Diego, CA

ASSIGNEE: Jonathan J. Hebert, Mission Viejo, CA

ASSIGNEE: Alex M. Nadzan, San Diego, CA

ASSIGNEE: Ligand Pharmaceuticals, Inc., San Diego, CA (U.S. corp.)

ASSIGNEE: Ligand Pharmaceuticals, Inc., San Diego, CA (U.S. corp.)

ASSIGNEE: Karen M. Hauda, Sheridan Ross, P.C.

ASSIGNEE: Sheridan Ross, P.C.

ASSIGNEE: Karen M. Hauda

ASSIGNEE: Sheridan Ross, P.C.

**ABSTRACT:**  
 The present invention includes yeast vehicles and their use as delivery vehicles. Yeast vehicles include a yeast portion and a heterologous compound. Such yeast vehicles can be used to protect animals from disease and to otherwise carry compounds to given cell types. Examples of yeast vehicles include gene delivery vehicles, drug delivery vehicles, and immunomodulatory vehicles. Immunomodulatory vehicles are capable of modulating an immune response. When stimulating an immune response, such yeast vehicles effect cell-mediated as well as humoral immunity.

APPL-NO: 08/475,514  
 DATE FILED: Jun. 7, 1995  
 ART-UNIT: 168  
 PRIM-EXMR: Ponnathapura Achuthamurthy  
 LEGAL-REP: William L. Respass, J. Scott Elmer

US PAT NO: 5,770,382 [IMAGE AVAILABLE] L2: 14 of 28

**ABSTRACT:**  
 Tricyclic retinoids having activity for retinoic acid receptors and/or retinoid X receptors are provided. Also provided are pharmaceutical compositions incorporating such tricyclic retinoid compounds and methods for their therapeutic use.

US PAT NO: 5,770,378 [IMAGE AVAILABLE] L2: 15 of 28

**ABSTRACT:**  
 Tricyclic retinoids, methods for their production and use

INVENTOR: Chan Kou Hwang, Boulder, CO

ASSIGNEE: Steven K. White, San Diego, CA

ASSIGNEE: Youseff L. Bennani, La Jolla, CA

ASSIGNEE: Stacie S. Canan Koch, San Diego, CA

ASSIGNEE: Beth Ann Bedee, San Diego, CA

ASSIGNEE: Jonathan J. Hebert, Mission Viejo, CA

ASSIGNEE: Alex M. Nadzan, San Diego, CA

ASSIGNEE: Ligand Pharmaceuticals, Inc., San Diego, CA (U.S. corp.)

ASSIGNEE: Ligand Pharmaceuticals, Inc., San Diego, CA (U.S. corp.)

ASSIGNEE: William L. Respass, J. Scott Elmer

ASSIGNEE: Karen M. Hauda, Sheridan Ross, P.C.

ASSIGNEE: Sheridan Ross, P.C.

ASSIGNEE: Karen M. Hauda

ASSIGNEE: Sheridan Ross, P.C.

ASSIGNEE: Karen M. Hauda

ASSIGNEE: Sheridan Ross, P.C.

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,770,382 [IMAGE AVAILABLE] L2: 14 of 28

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,770,382 [IMAGE AVAILABLE] L2: 14 of 28

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

APPL-NO: 08/765,605  
 DATE FILED: Dec. 12, 1996  
 ART-UNIT: 184  
 PRIM-EXMR: Robert A. Wax  
 ASST-EXMR: Garth E. Bugasky  
 LEGAL-REP: Lucy J. Billings

US PAT NO: 5,763,220 [IMAGE AVAILABLE] L2: 17 of 28

**ABSTRACT:**  
 A novel cytokine designated TRAIL induces apoptosis of certain target cells, including cancer cells and virally infected cells. Isolated DNA sequences encoding TRAIL are disclosed, along with expression vectors and transformed host cells useful in producing TRAIL polypeptides. Antibodies that specifically bind TRAIL are provided as well.

US PAT NO: 5,763,220 [IMAGE AVAILABLE] L2: 17 of 28

**ABSTRACT:**  
 Human apoptosis-related calcium-binding protein

INVENTOR: Jennifer L. Hillman, San Jose, CA

ASSIGNEE: Imcyte Pharmaceuticals, Inc., Palo Alto, CA (U.S. corp.)

ASSIGNEE: Surya K. Goli, Sunnyvale, CA

ASSIGNEE: Imcyte Pharmaceuticals, Inc., Palo Alto, CA (U.S. corp.)

ASSIGNEE: Jennifer L. Hillman, San Jose, CA

ASSIGNEE: Surya K. Goli, Sunnyvale, CA

ASSIGNEE: Jennifer L. Hillman, San Jose, CA

ASSIGNEE: Surya K. Goli, Sunnyvale, CA

ASSIGNEE: Jennifer L. Hillman, San Jose, CA

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,770,382 [IMAGE AVAILABLE] L2: 14 of 28

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

DATE FILED: May 23, 1996  
 ART-UNIT: 129  
 PRIM-EXMR: Richard L. Raymond  
 LEGAL-REP: Nixon & Vanderhye, P.C.

US PAT NO: 5,730,916 [IMAGE AVAILABLE] L2: 8 of 28

**ABSTRACT:**  
 The present invention relates, in general, to the bioeffector molecule ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,730,916 [IMAGE AVAILABLE] L2: 8 of 28

**ABSTRACT:**  
 The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking Fas ligand-mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

US PAT NO: 5,730,916 [IMAGE AVAILABLE] L2: 8 of 28

**ABSTRACT:**  
 The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking Fas ligand-mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

US PAT NO: 5,730,916 [IMAGE AVAILABLE] L2: 8 of 28

**ABSTRACT:**  
 Yeast-based delivery vehicles are disclosed. Also disclosed are methods for altering apoptosis in cells, for promoting cell survival and for identifying compounds capable of affecting the binding of Bax-omega to other proteins involved in apoptosis.

US PAT NO: 5,730,916 [IMAGE AVAILABLE] L2: 8 of 28

**ABSTRACT:**  
 The present invention includes yeast vehicles and their use as delivery vehicles. Yeast vehicles include a yeast portion and a heterologous compound. Such yeast vehicles can be used to protect animals from disease and to otherwise carry compounds to given cell types. Examples of yeast vehicles include gene delivery vehicles, drug delivery vehicles, and immunomodulatory vehicles. Immunomodulatory vehicles are capable of modulating an immune response. When stimulating an immune response, such yeast vehicles effect cell-mediated as well as humoral immunity.

US PAT NO: 5,798,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,798,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking Fas ligand-mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

US PAT NO: 5,798,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 Yeast-based delivery vehicles are disclosed. Also disclosed are methods for altering apoptosis in cells, for promoting cell survival and for identifying compounds capable of affecting the binding of Bax-omega to other proteins involved in apoptosis.

US PAT NO: 5,798,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 The present invention includes yeast vehicles and their use as delivery vehicles. Yeast vehicles include a yeast portion and a heterologous compound. Such yeast vehicles can be used to protect animals from disease and to otherwise carry compounds to given cell types. Examples of yeast vehicles include gene delivery vehicles, drug delivery vehicles, and immunomodulatory vehicles. Immunomodulatory vehicles are capable of modulating an immune response. When stimulating an immune response, such yeast vehicles effect cell-mediated as well as humoral immunity.

US PAT NO: 5,798,210 [IMAGE AVAILABLE] L2: 11 of 28

**ABSTRACT:**  
 The present invention relates to methods of effecting intracellular ceramide and, in particular, to methods of effecting intracellular selective compartmentation of ceramide. The invention further relates to methods of selecting compounds that inhibit alkaline ceramidase and that can be used to treat diseases/disorders associated with cell hyperplasia or dedifferentiation.

US PAT NO: 5,763,220 [IMAGE AVAILABLE] L2: 17 of 28

**ABSTRACT:**

The present invention provides a human apoptosis-related calcium-binding protein (HARC) and polynucleotides which identify and encode HARC. The invention also provides genetically engineered expression vectors and host cells comprising the nucleic acid sequences encoding HARC and a method for producing HARC. The invention also provides for agonists, antagonists or antagonists specifically binding HARC, and their use, in the prevention and treatment of diseases associated with expression of HARC. Additionally, the invention provides for the use of antisense molecules to polynucleotides encoding HARC for the treatment of diseases associated with the expression of HARC. The invention also provides diagnostic assays which utilize the polynucleotide, or fragments, or the complement thereof, and antibodies specifically binding HARC.

US PAT NO: 5,759,556 [IMAGE AVAILABLE]

L2: 18 of 28

DATE ISSUED: Jun. 2, 1998  
TITLE: Use of fas ligand to suppress T-lymphocyte-mediated immune responses

INVENTOR: Donald Bellgrau, Denver, CO  
SIGNEE: University Technology Corporation, Boulder, CO (U.S. corp.)

APPL NO: 083738,507  
DATE FILED: Jan. 26, 1995  
ART-UNIT: 189  
PRIM-EXMR: Bruce R. Campbell  
LEGAL-REP: Sheridan & Ross, P.C.

US PAT NO: 5,759,536 [IMAGE AVAILABLE]

L2: 18 of 28

ABSTRACT:  
A method for inhibiting T-lymphocyte-mediated immune responses, including those directed against autologous and/or heterologous tissues, e.g., by a recipient mammal or a transplanted tissue, said method comprising providing the recipient mammal with Fas ligand. The Fas ligand may be provided to the recipient mammal by a variety of means, including by pump implantation or by transplantation of transgenic tissue expressing Fas ligand. Also provided is a method for diagnostic use of Fas ligand expression in improving transplantation success.

US PAT NO: 5,756,086 [IMAGE AVAILABLE]

L2: 19 of 28

DATE ISSUED: May 26, 1998  
TITLE: Adenoviruses having modified fiber proteins

INVENTOR: Alan McClelland, Pittsburgh, MD  
SIGNEE: Susan C. Stevenson, Frederick, MD  
PRIM-EXMR: Genetic Therapy, Inc., Gaithersburg, MD (U.S. corp.)  
APPL NO: 08551,492  
DATE FILED: Feb. 6, 1996  
ART-UNIT: 185  
PRIM-EXMR: Johnny F. Ralley, II  
LEGAL-REP: Elliot M. Oistain, Raymond J. Little

US PAT NO: 5,756,086 [IMAGE AVAILABLE]

L2: 19 of 28

ABSTRACT:  
An adenovirus wherein the adenovirus fiber protein includes a ligand which is specific for a receptor located on a desired cell type. The adenovirus may have at least a portion of the adenovirus fiber protein removed and replaced with a ligand which is specific for a receptor located on a desired cell type, or the adenovirus may include a fusion protein of the adenovirus fiber protein and the ligand. Such an adenovirus may also include a gene(s) encoding a therapeutic agent(s) and may be "targeted" in order to deliver such gene(s) to a desired cell type.

US PAT NO: Medicine, Denver, CO (U.S. corp.)

APPL-NO: 08472,934

DATE FILED: Jun. 6, 1995

ART-UNIT: 182  
PRIM-EXMR: Stephen Walsh  
ASSI-EXMR: Kenneth A. Sorensen

LEGAL-REP: Giulio A. DeConti, Jr., Catherine J. Kara

provides a method of using a reagent that can specifically bind to a FAP to diagnose a pathology that is characterized by an increased or decreased level of apoptosis in a cell. The invention also provides methods of modulating apoptosis in a cell by contacting the cell with an agent that effectively alters the association of a FAP and Fas in a cell or alters the activity of a FAP in a cell.

US PAT NO: 5,753,446 [IMAGE AVAILABLE] L2: 20 of 28

**ABSTRACT:**

The present invention relates to isolated MEKK proteins, nucleic acid molecules having sequences that encode such proteins, and antibodies raised against such proteins. The present invention also includes methods useful for identifying compounds capable of specifically regulating signal transduction in cells expressing MEKK protein.

US PAT NO: 5,750,653 [IMAGE AVAILABLE] L2: 21 of 28

DATE ISSUED: May 12, 1998  
TITLE: Protein, FAF1, which potentiates Fas-mediated apoptosis and uses thereof

INVENTOR: Keting Chu, Burlingame, CA  
SIGNEE: Lewis T. Williams, Tiburon, CA  
PRIM-EXMR: (U.S. corp.)

APPL NO: 08477,476  
DATE FILED: Jun. 7, 1995  
ART-UNIT: 182  
PRIM-EXMR: Stephen Walsh  
ASST-EXMR: Danny A. Basham  
LEGAL-REP: Townsend and Townsend and Crew LLP

US PAT NO: 5,750,653 [IMAGE AVAILABLE]

L2: 21 of 28

ABSTRACT:  
The present invention identifies a novel, Fas-associated factor 1 termed FAF1 which potentiates Fas-induced cell killing. The invention provides FAF1 nucleic acid and polypeptide compositions as well as methods of using these compositions in the therapeutic treatment of diseases resulting from dysregulation in apoptosis. Also provided are cells carrying and expressing the nucleic acid compositions and methods of using these cells to screen for agonists and antagonists of Fas-mediated apoptosis. Methods of isolating FAF1-interacting proteins are disclosed.

US PAT NO: 5,747,245 [IMAGE AVAILABLE]

L2: 22 of 28

DATE ISSUED: May 5, 1998  
TITLE: Nucleic acids encoding Fas associated proteins and screening assays using same

INVENTOR: John C. Reed, Cansid, CA  
SIGNEE: Takaaki Sato, San Diego, CA  
PRIM-EXMR: (corp.)  
APPL NO: 08259,514  
DATE FILED: Jun. 14, 1994  
ART-UNIT: 187  
PRIM-EXMR: Stephanie W. Zitomer  
ASST-EXMR: Diane Rees

US PAT NO: 5,747,245 [IMAGE AVAILABLE]

L2: 22 of 28

ABSTRACT:  
The present invention provides a polynucleotide which identifies and encodes a human cell death-associated protein (cdap) which was isolated from a rheumatoid synovium library. The invention provides for genetically engineered expression vectors and host cells comprising a nucleic acid sequence encoding CDAP. The invention also provides for the therapeutic use of purified CDAP, cdap or its antisense molecules, or CDAP inhibitors in pharmaceutical compositions and for treatment of conditions or diseases associated with expression of CDAP. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, or fragments thereof, or antibodies which specifically bind to the polypeptide.

US PAT NO: 5,712,115 [IMAGE AVAILABLE]

L2: 24 of 28

DATE ISSUED: Jan. 27, 1998  
TITLE: Human cell death-associated protein

INVENTOR: Phillip R. Hawkins, Mountain View, CA  
SIGNEE: Scott Michael Braxton, San Mateo, CA  
PRIM-EXMR: Lynn E. Muny, Portola Valley, CA  
ASST-EXMR: Incyte Pharmaceuticals, Inc., Palo Alto, CA (U.S. corp.)  
APPL-NO: 08618,164  
DATE FILED: Mar. 19, 1996

ART-UNIT: 186  
PRIM-EXMR: Christina Y. Chan  
ASST-EXMR: Emma Cech  
LEGAL-REP: Lucy J. Billings, Barbara J. Luther

US PAT NO: 5,712,115 [IMAGE AVAILABLE]

L2: 24 of 28

ABSTRACT:  
The present invention provides a polynucleotide which identifies and encodes a human cell death-associated protein (cdap) which was isolated from a rheumatoid synovium library. The invention provides for genetically engineered expression vectors and host cells comprising a nucleic acid sequence encoding CDAP. The invention also provides for the therapeutic use of purified CDAP, cdap or its antisense molecules, or CDAP inhibitors in pharmaceutical compositions and for treatment of conditions or diseases associated with expression of CDAP. The invention also describes diagnostic assays which utilize diagnostic compositions comprising the polynucleotide, or fragments thereof, or antibodies which specifically bind to the polypeptide.

US PAT NO: 5,663,070 [IMAGE AVAILABLE]

L2: 25 of 28

DATE ISSUED: Sep. 2, 1997  
TITLE: Recombinant production of a soluble splice variant of the Fas (Apo-1) antigen, fas TM

INVENTOR: Philip J. Bar, Berkeley, CA  
SIGNEE: John P. Shapiro, Albany, CA  
Michael C. Kleter, Clayton, CA  
PRIM-EXMR: LXR Biotechnology Inc., Richmond, CA (U.S. corp.)  
APPL-NO: 08152,443  
DATE FILED: Nov. 15, 1993  
ART-UNIT: 182  
PRIM-EXMR: David L. Fridgefield  
LEGAL-REP: Morrison & Foerster

US PAT NO: 5,663,070 [IMAGE AVAILABLE]

L2: 25 of 28

ABSTRACT:  
The invention provides soluble forms of the Fas (Apo-1) protein

US PAT NO: 5,753,446 [IMAGE AVAILABLE]

L2: 20 of 28

DATE ISSUED: May 19, 1998  
TITLE: Mitogen-ERK kinase kinase (MEKK) assay

INVENTOR: Gary L. Johnson, Boulder, CO

ASSIGNEE: National Jewish Center for Immunology & Respiratory

comprising both the intracellular and extracellular domains of the full-length polypeptide. Exemplified is a naturally-occurring splice variant of the Fas gene, Fas DELTA, TM, which lacks the transmembrane domain of the native antigen. DNA encoding the protein, cells expressing the recombinant DNA, and methods of using the protein and DNA are also provided.

US PAT NO: 5,652,210 [IMAGE AVAILABLE]

L2: 26 of 28

DATE ISSUED: Jul 29, 1997

TITLE: Soluble splice variant of the Fas (APO-1) antigen,

Fas DELTA, TM

INVENTOR: Phillip J. Barr, Berkeley, CA

John P. Shapiro, Albany, CA

Michael C. Kieter, Clayton, CA

ASSIGNEE: LXR Biotechnology Inc., Richmond, CA (U.S. corp.)

APPL NO: 08444,231

DATE FILED: May 18, 1995

ART-UNIT: 182

PRIM-EXMR: David L. Fitzgerald

LEGAL-REP: Morrison & Foerster

US PAT NO: 5,652,210 [IMAGE AVAILABLE]

L2: 26 of 28

ABSTRACT:

The invention provides soluble forms of the Fas (APO-1) protein comprising both the intracellular and extracellular domains of the full-length polypeptide. Exemplified is a naturally-occurring splice variant of the Fas gene, Fas DELTA, TM, which lacks the transmembrane domain of the native antigen. DNA encoding the protein, cells expressing the recombinant DNA, and methods of using the protein and DNA are also provided.

US PAT NO: 5,632,994 [IMAGE AVAILABLE]

L2: 26 of 28

DATE ISSUED: May 27, 1997

TITLE: Fas associated proteins

INVENTOR: John C. Reed, Carlsbad, CA

Takaki Sato, San Diego, CA

ASSIGNEE: La Jolla Cancer Research Foundation, La Jolla, CA (U.S. corp.)

APPL NO: 08410,804

DATE FILED: Mar. 27, 1995

ART-UNIT: 187

PRIM-EXMR: Stephanie W. Zitomer

ASST-EXMR: Dianne Rees

LEGAL-REP: Campbell and Flores

US PAT NO: 5,632,994 [IMAGE AVAILABLE]

L2: 27 of 28

ABSTRACT:

The present invention provides mammalian protein tyrosine phosphatases, each of which is a Fas-associated protein (FAP), nucleic acid molecules encoding a PTP-BAS type 4 or a PTP-BAS type 5 and antibodies specific for a PTP-BAS type 4 or a PTP-BAS type 5. The invention also provides methods for identifying FAPs, which can associate with Fas and can modulate apoptosis. The invention also provides screening assays for identifying an agent that can effectively alter the association of a FAP with Fas and, therefore, can increase or decrease the level of apoptosis in a cell. The invention further provides methods of modulating apoptosis in a cell by introducing into the cell a nucleic acid molecule encoding a PTP-BAS or fragment of a PTP-BAS or an antisense nucleotide sequence, which is complementary to a portion of a nucleic acid molecule encoding a PTP-BAS. The invention also provides a method of using a reagent that can specifically bind to a FAP to diagnose a pathology that is characterized by an increased or decreased level of apoptosis in a cell. The invention also provides methods of modulating apoptosis in a cell by contacting the cell with an agent that effectively alters the association of a FAP and Fas in a cell or alters the activity of a FAP in a cell.

Mark R. Alderson, Bainbridge Island, WA  
ASSIGNEE: Immunex Corporation, Seattle, WA (U.S. corp.)  
APPL NO: 08522,805  
DATE FILED: Oct. 13, 1994  
ART-UNIT: 186  
PRIM-EXMR: Susan A. Loring

US PAT NO: 5,620,869 [IMAGE AVAILABLE]

L2: 28 of 28

ABSTRACT:

The present invention provides a panel of monoclonal antibodies and binding proteins which specifically bind to human Fas antigen. Some of the antibodies and binding proteins are capable of stimulating T cell proliferation, inhibiting binding of anti-Fas CH-11 monoclonal antibody to cells expressing Fas antigen, blocking anti-Fas CH-11 monoclonal antibody-mediated lysis of cells, and blocking Fas ligand-mediated lysis of cells. The invention also provides for therapeutic compositions comprising the monoclonal antibodies.

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US PAT NO: 5,620,869 [IMAGE AVAILABLE]

L2: 28 of 28

DATE ISSUED: Apr. 15, 1997

TITLE: Human anti-Fas IgG1 monoclonal antibodies

INVENTOR: David H. Lynch, Bainbridge Island, WA